FIBRE Second Run Software Kickoff

August 22, 2001

DjB, TAA, GMV, JGS, LMC, SHM

George's Introduction:

There were issues with software on FIBRE Run #1. We want to make sure we address those which are <u>crucial</u> for the completion of science in February, saving all others until later.

What would be highly desirable for the February 2002 CSO run software:

Robustness:

No loss of data for an hour or so

Ease of Use:

Upon startup following crash (for example), start data taking within a minute More high level routines to simplify operations

Manual: "IRC for Dummies"

Suitability to Observing:

Complete data stream with telescope & Fabry-Perot synchronization (not real time but with latency of less than a few minutes, postprocessed if necessary)

Data format can be output in such a way as to be readable by other software

Visualizations at slower rates (e.g., chop-coadded at 4Hz)

Mathematical Ability:

Chopped-beam differencing in real time

Coaddition in real time; coaddition to CSO 100Hz rate

Binning/histogramming for spectroscopy in real time ("accumulator visualization)

Trov

Will give us advice on new computer to buy (P4 benchmarks).

Lvnne:

IRC team <u>must know</u> what F-P data stream means.

To Do Prioritization of Importance/Difficulty:

- 1/* No loss of data for an hour or so
- 3/ Upon startup following crash (for example), start data taking within a minute
- 3/* More high level routines to simplify operations
- 2/* Manual: "IRC for Dummies"
- 1/H* Complete data stream with telescope & Fabry-Perot synchronization
- 1/E* Data format can be output in such a way as to be readable by other software
- 1/E Chopped-beam differencing in real time
- 2/E Coaddition in real time; coaddition to CSO 100Hz rate
- 2/M* Binning/histogramming for spectroscopy in real time ("accumulator visualization)
- 1/* Reliable, high-fidelity Telescope/F-P simulator

^{*} substantial effort from 685 to define, implement, or test these items.

Future Schedule:

Followup meeting to be held Thursday, August 23 11am for Data Input Format Definition

Wednesday, Sept 5 9:30am: IRC Chop Demo & Data Output Format Definition

Deliver IRC version with #1 priorities implemented November 1.